

CLAIMS

The invention claimed is:

1. A pivot assembly for hard disk drive use comprising:

a pair of ball bearings, said ball bearings being spaced apart, each of said bearing further comprising an outer ring; and
a spacer extended between said outer rings of said ball bearings;
wherein said spacer is fixed to said outer rings of said ball bearings by laser welding.

2. The pivot assembly for hard disk drive use according to Claim 1,

wherein said spacer further comprises a sharp edge formed at an outer circumferential border of an end face of said spacer; and
wherein said spacer is laser welded to said outer rings at said sharp edge.

3. The pivot assembly for hard disk drive use according to Claim 2,

wherein each of said outer rings further comprise a chamfer of a cross-sectional abbreviated circular arc shape formed at an outer circumferential border of an end face of said each outer ring and an inner circumferential portion of said end face; and

wherein said sharp edge is laser welded to said inner circumferential portion of said end face.

4. The pivot assembly for hard disk drive use according to Claim 2,

wherein said spacer further comprises an outer diameter;

wherein said outer rings further comprise an outer diameter;
wherein at least a portion of said outer diameter of said spacer is
smaller than said outer diameter of said outer rings; and

wherein said sharp edge is formed on said portion of said spacer
having said smaller outer diameter.

5. The pivot assembly for hard disk drive use according to Claim 2,
wherein said spacer comprises a portion having a larger diameter
and a portion having a smaller diameter; and

wherein said sharp edge is formed on said portion having a smaller
diameter.

6. The pivot assembly for hard disk drive use according to Claim 2,
wherein said sharp edge further comprises a radius of 0.1mm or
less.

7. The pivot assembly for hard disk drive use according to Claim 2,
wherein said spacer further comprises means for attaching a swing
arm.